



The ComNet CNMCSFP electrical-to-optical Ethernet media converters accept a 10/100 or 1000 Mbps electrical input and converts this to a 100 or 1000 Mbps optical output (selected by a dip switch) and the 100/1000 Mbps optical input back to the 10/100/1000 Mbps electrical output. "Auto-Negotiating" is supported on the copper interface side. These devices use either one or two optical fibers, depending upon the selection of sold-separately SFP+ optical module. A PoE model, the CNMCSFPPOE/M meets the IEEE802.3at standard and provides 30 watts of PoE+ power. The series consists of a small-size single channel model, CNMCSFP/M; a ComFit standard size, single-channel model, CNMCSFP; a dual channel model, CNMC2SFP; and a quad channel model, the CNMC4SFP.

## FEATURES

- › Full-duplex transmission of 10/100/1000 Mbps Ethernet
  - 10/100/1000BASE-TX electrical port
  - 1000BASE-FX or 100BASE-FX optical port when used with suitable ComNet SFPs
- › IEEE 802.3 compliant
- › 10/100/1000 BASE-TX port supports auto-negotiation and automatic MDI/MDI-X crossover for full and half-duplex operation
- › Uses customer-installed ComNet SFPs for compatibility with a wide range of optical fibers, optical connector types, and optical transmission distances of up to 120 km
- › Designed for installation in harsh out-of-plant/unconditioned industrial or roadside operating environments (-40° to +75°C ambient). Fully compliant with the environmental requirements of NEMA TS-2 for Traffic Signal Control Equipment
- › Voltage transient protection on all power and signal input/output line provide protection from voltage surges and other transient events
- › Mini-package size of the CNMCSFP/M allows the unit to be installed in those locations where space is at a premium.
- › Supports Jumbo Frames up to 10K Bytes for streaming video applications

- › Bi-color LED status indicators confirm operating status
- › Hot-swappable rack modules
- › Available in small-size, ComFit interchangeable stand alone or rack unit single and dual models
- › Lifetime warranty
- › Made in the U.S.A.

## APPLICATIONS

- › Optical transmission of Ethernet-compatible industrial security access control systems, intercom systems, VOIP (Voice over IP) telephony networks, and IP-compatible CCTV camera surveillance networks
- › Optical Ethernet transmission to wireless LAN access points
- › Industrial Security, Transportation/ITS, and Industrial Control/Factory Automation IP Networks
- › Optical transmission of any Ethernet-compatible equipment with a maximum data rate of 100 Mbps or 1000 Mbps

\* Power Supply for PoE applications is sold separately.

† Small Form-Factor Pluggable Module. Sold separately.

## SPECIFICATIONS

### Data

Data Interface	Ethernet
Data Rate	10/100/1000 Mbps
	IEEE 802.3 Compliant
	Full Duplex or Half Duplex Electrical Port/ Full Duplex Optical Port

### Connectors<sup>1</sup>

Power	Terminal Block
Optical	SFP dependent
Electrical	RJ45
Fibers <sup>1</sup>	SFP Dependent
Fiber Connectors	Requires selection of sold-separately SFP modules. See ComNet data sheet for number and description of SFP modules.

### Power

Operating Voltage Range	Non-PoE: 9-24 VDC or 24 VAC  PoE: 48 – 57 VDC @ 0.85A
Power Consumption	CNMCSPPOE/M: 35W (with full PoE+ load) Surface Mount: 2.5W 1Ch, 5W 2Ch, 10W 4Ch
Current Protection	Automatic Resettable Solid-State Current Limiters

### Electrical & Mechanical

LED Indicators	› Optical Link/Data Activity › Power › POE Enabled (CNMCSPPOE/M only)
Circuit Board	Meets IPC Standard
ComFit Size	6.1 × 5.3 × 1.1 in (15.5 × 13.5 × 2.8 cm)
ComFit Rack Slots	1
Mini Size	3.3 x 2.5 x 1.1 in (8.4 x 6.4 x 2.8 cm)
Shipping Weight	<2 lbs./0.9 kg

### Environmental

MTBF	>100,000 hours
Operating Temp	-40° C to +75° C
Storage Temp	-40° C to +85° C
Relative Humidity	0% to 95% (non-condensing) <sup>2</sup>

[1] Multimode fiber needs to meet or exceed fiber standard ITU-T G.651. Single mode fiber needs to meet or exceed fiber standard ITU-T G.652



## ORDERING INFORMATION

Part Number	Description	# Rack Slots
CNMCSP/M	Mini 10/100/1000Mbps Ethernet Media Converter	N/A
CNMCSPPOE/M	Mini 10/100/1000Mbps Ethernet Media Converter with IEEE 802.3at 30W PoE+	N/A
CNMCSP	ComFit 10/100/1000Mbps Ethernet Media Converter	1
CNMC2SFP	ComFit Dual 10/100/1000Mbps Ethernet Media Converter	1
CNMC2SFPPOE	Dual 10/100/1000Mbps Multi-Rate Media Converter, 100FX/1000FX Selectable, PoE+	1
CNMC4SFP	ComFit Quad 10/100/1000Mbps Ethernet Media Converter	1
Included Accessories	DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included, for benign 0 to 50°C applications only. Hardened power supply available, consult factory)	
Options	48 Volt DC Plug-in Power Supply for use with CNMCSPPOE/M model only (Extra charge, consult factory). User selection of ComNet SFP (see SFP Modules data sheet for product numbers and compatibility before ordering) [2] Add suffix '/C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory) DIN-Rail Mounting Adaptor Kit - With Mounting Hardware (Optional, order model DINBK4)	

Note: In a continuing effort to improve and advance technology, product specifications are subject to change without notice.

## TYPICAL APPLICATIONS

